

074-us1.ST25.txt
SEQUENCE LISTING

<110> Paz Einat, Louis Deiss, and Ruth Maya

<120> WWP1 AND USES THEREOF

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<151> 2002-07-11

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Arg Leu Gln Leu Gln Val Thr Val Ser Ser Ala Lys Leu Lys Arg Lys	
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aag aac tgg ttc gga aca gca ata tat aca gaa gta gtt gta gat gga	144
Lys Asn Trp Phe Gly Thr Ala Ile Tyr Thr Glu Val Val Val Asp Gly	
35 40 45	

gaa att acg aaa aca gca aaa tcc agt agt tct tct aat cca aaa tgg	192
Glu Ile Thr Lys Thr Ala Lys Ser Ser Ser Ser Ser Asn Pro Lys Trp	
50 55 60	

gat gaa cag cta act gta aat gtt acg cca cag act aca ttg gaa ttt	240
Asp Glu Gln Leu Thr Val Asn Val Thr Pro Gln Thr Thr Leu Glu Phe	
65 70 75 80	

caa gtt tgg agc cat cgc act tta aaa gca gat gct tta tta gga aaa	288
Gln Val Trp Ser His Arg Thr Leu Lys Ala Asp Ala Leu Leu Gly Lys	
85 90 95	

gca acg ata gat ttg aaa caa gct ctg ttg ata cac aat aga aaa ttg	336
Ala Thr Ile Asp Leu Lys Gln Ala Leu Leu Ile His Asn Arg Lys Leu	
100 105 110	

gaa aga gtg aaa gaa caa tta aaa ctt tcc ttg gaa aac aag aat ggc	384
Glu Arg Val Lys Glu Gln Leu Lys Leu Ser Leu Glu Asn Lys Asn Gly	
115 120 125	

ata gca caa act ggt gaa ttg aca gtt gtg ctt gat gga ttg gtg att	432
Ile Ala Gln Thr Gly Glu Leu Thr Val Val Leu Asp Gly Leu Val Ile	
130 135 140	

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gag Glu 145	caa Gln	gaa Glu	aat Asn	ata Ile	aca Thr 150	aac Asn	tgc Cys	agc Ser	tca Ser 155	tct Ser	cca Pro	acc Thr	ata Ile	gaa Glu 160	ata Ile	480
cag Gln	gaa Glu	aat Asn	ggg Gly 165	gat Asp 165	gcc Ala	tta Leu	cat His	gaa Glu 170	aat Asn 170	gga Gly	gag Glu	cct Pro	tca Ser	gca Ala 175	agg Arg	528
aca Thr	act Thr	gcc Ala 180	agg Arg 180	ttg Leu	gct Ala	gtt Val	gaa Glu	ggc Gly 185	acg Thr	aat Asn	gga Gly	ata Ile	gat Asp 190	aat Asn	cat His	576
gta Val	cct Pro	aca Thr 195	agc Ser	act Thr	cta Leu	gtc Val	caa Gln 200	aac Asn	tca Ser	tgc Cys	tgc Cys	tcg Ser 205	tat Tyr	gta Val	gtt Val	624
aat Asn 210	gga Gly	gac Asp	aac Asn	aca Thr	cct Pro	tca Ser 215	tct Ser	ccg Pro	tct Ser	cag Gln	gtt Val 220	gct Ala	gcc Ala	aga Arg	ccc Pro	672
aaa Lys 225	aat Asn	aca Thr	cca Pro	gct Ala	cca Pro 230	aaa Lys	cca Pro	ctc Leu	gca Ala 235	tct Ser	gag Glu	cct Pro	gcc Ala	gat Asp	gac Asp 240	720
act Thr	gtt Val	aat Asn	gga Gly	gaa Glu 245	tca Ser	tcc Ser	tca Ser	ttt Phe	gca Ala 250	cca Pro	act Thr	gat Asp	aat Asn	gcg Ala 255	tct Ser	768
gtc Val	acg Thr	ggg Gly	act Thr 260	cca Pro	gta Val	gtg Val	tct Ser	gaa Glu 265	gaa Glu	aat Asn	gcc Ala	ttg Leu	tct Ser 270	cca Pro	aat Asn	816
tgc Cys	act Thr	agt Ser 275	act Thr	act Thr	gtt Val	gaa Glu	gat Asp 280	cct Pro	cca Pro	gtt Val	caa Gln	gaa Glu	ata Ile	ctg Leu	act Thr	864
tcc Ser 290	tca Ser	gaa Glu	aac Asn	aat Asn	gaa Glu	tgt Cys 295	att Ile	cct Pro	tct Ser	acc Thr	agt Ser 300	gca Ala	gaa Glu	ttg Leu	gaa Glu	912
tct Ser 305	gaa Glu	gct Ala	aga Arg	agt Ser	ata Ile 310	tta Leu	gag Glu	cct Pro	gac Asp	acc Thr 315	tct Ser	aat Asn	tct Ser	aga Arg	agt Ser 320	960
agt Ser	tct Ser	gct Ala	ttt Phe 325	gaa Glu	gca Ala	gcc Ala	aaa Lys	tca Ser	aga Arg 330	cag Gln	cca Pro	gat Asp	ggg Gly	tgt Cys 335	atg Met	1008
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Val Arg Asn Phe Glu Gln Trp Gln Ser Gln Arg Asn Gln Leu Gln Gly	
420 425 430	
gct atg caa cag ttt aac caa cga tac ctc tat tcg gct tca atg tta	1344
Ala Met Gln Gln Phe Asn Gln Arg Tyr Leu Tyr Ser Ala Ser Met Leu	
435 440 445	
gct gca gaa aat gac cct tat gga cct ttg cca cca ggc tgg gaa aaa	1392
Ala Ala Glu Asn Asp Pro Tyr Gly Pro Leu Pro Pro Gly Trp Glu Lys	
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aga gtg gat tca aca gac agg gtt tac ttt gtg aat cat aac aca aaa	1440
Arg Val Asp Ser Thr Asp Arg Val Tyr Phe Val Asn His Asn Thr Lys	
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ccc ctg cca gaa ggc tgg gaa att aga tat act cgt gaa ggt gta agg	1536
Pro Leu Pro Glu Gly Trp Glu Ile Arg Tyr Thr Arg Glu Gly Val Arg	
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Tyr Phe Val Asp His Asn Thr Arg Thr Thr Thr Phe Lys Asp Pro Arg	
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Asn Gly Lys Ser Ser Val Thr Lys Gly Gly Pro Gln Ile Ala Tyr Glu	
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Arg Gly Phe Arg Trp Lys Leu Ala His Phe Arg Tyr Leu Cys Gln Ser	
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Asn Ala Leu Pro Ser His Val Lys Ile Asn Val Ser Arg Gln Thr Leu	
565 570 575	
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Phe Glu Asp Ser Phe Gln Gln Ile Met Ala Leu Lys Pro Tyr Asp Leu	
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Arg Arg Arg Leu Tyr Val Ile Phe Arg Gly Glu Glu Gly Leu Asp Tyr	
595 600 605	
ggg ggc cta gcg aga gaa tgg ttt ttc ttg ctt tca cat gaa gtt ttg	1872
Gly Gly Leu Ala Arg Glu Trp Phe Phe Leu Leu Ser His Glu Val Leu	
610 615 620	
aac cca atg tat tgc tta ttt gag tat gcg ggc aag aac aac tat tgt	1920
Asn Pro Met Tyr Cys Leu Phe Glu Tyr Ala Gly Lys Asn Asn Tyr Cys	
625 630 635 640	
ctg cag ata aat cca gca tca acc att aat cca gac cat ctt tca tac	1968
Leu Gln Ile Asn Pro Ala Ser Thr Ile Asn Pro Asp His Leu Ser Tyr	
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Phe Ile Asp Thr Gly Phe Ser Leu Pro Phe Tyr Lys Arg Met Leu Ser	
675 680 685	
aaa aaa ctt act att aag gat ttg gaa tct att gat act gaa ttt tat	2112
Lys Lys Leu Thr Ile Lys Asp Leu Glu Ser Ile Asp Thr Glu Phe Tyr	
690 695 700	
aac tcc ctt atc tgg ata aga gat aac aac att gaa gaa tgt ggc tta	2160
Asn Ser Leu Ile Trp Ile Arg Asp Asn Asn Ile Glu Glu Cys Gly Leu	
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gaa atg tac ttt tct gtt gac atg gag att ttg gga aaa gtt act tca	2208
Glu Met Tyr Phe Ser Val Asp Met Glu Ile Leu Gly Lys Val Thr Ser	
725 730 735	
cat gac ctg aag ttg gga ggt tcc aat att ctg gtg act gag gag aac	2256
His Asp Leu Lys Leu Gly Gly Ser Asn Ile Leu Val Thr Glu Glu Asn	
740 745 750	
aaa gat gaa tat att ggt tta atg aca gaa tgg cgt ttt tct cga gga	2304
Lys Asp Glu Tyr Ile Gly Leu Met Thr Glu Trp Arg Phe Ser Arg Gly	
755 760 765	
gta caa gaa cag acc aaa gct ttc ctt gat ggt ttt aat gaa gtt gtt	2352
Val Gln Glu Gln Thr Lys Ala Phe Leu Asp Gly Phe Asn Glu Val Val	
770 775 780	
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Pro Leu Gln Trp Leu Gln Tyr Phe Asp Glu Lys Glu Leu Glu Val Met	
785 790 795 800	
ttg tgt ggc atg cag gag gtt gac ttg gca gat tgg cag aga aat act	2448
Leu Cys Gly Met Gln Glu Val Asp Leu Ala Asp Trp Gln Arg Asn Thr	
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gtt tat cga cat tat aca aga aac agc aag caa atc att tgg ttt tgg	2496
Val Tyr Arg His Tyr Thr Arg Asn Ser Lys Gln Ile Ile Trp Phe Trp	
820 825 830	
cag ttt gtg aaa gag aca gac aat gaa gta aga atg cga cta ttg cag	2544
Gln Phe Val Lys Glu Thr Asp Asn Glu Val Arg Met Arg Leu Leu Gln	
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ttc gtc act gga acc tgc cgt tta cct cta gga gga ttt gct gag ctc	2592
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865 870 875 880	
gac act tgg tta cca aga agc cat aca tgt ttt aat cgc ttg gat cta	2688
Asp Thr Trp Leu Pro Arg Ser His Thr Cys Phe Asn Arg Leu Asp Leu	
885 890 895	
cca cca tat aag agt tat gaa caa cta aag gaa aaa ctt ctt ttt gca	2736
Pro Pro Tyr Lys Ser Tyr Glu Gln Leu Lys Glu Lys Leu Leu Phe Ala	
900 905 910	

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 Asp Lys
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 35 40 45

Glu Ile Thr Lys Thr Ala Lys Ser Ser Ser Ser Ser Asn Pro Lys Trp
 50 55 60

Asp Glu Gln Leu Thr Val Asn Val Thr Pro Gln Thr Thr Leu Glu Phe
 65 70 75 80

Gln Val Trp Ser His Arg Thr Leu Lys Ala Asp Ala Leu Leu Gly Lys
 85 90 95

Ala Thr Ile Asp Leu Lys Gln Ala Leu Leu Ile His Asn Arg Lys Leu
 100 105 110

Glu Arg Val Lys Glu Gln Leu Lys Leu Ser Leu Glu Asn Lys Asn Gly
 115 120 125

Ile Ala Gln Thr Gly Glu Leu Thr Val Val Leu Asp Gly Leu Val Ile
 130 135 140

Glu Gln Glu Asn Ile Thr Asn Cys Ser Ser Ser Pro Thr Ile Glu Ile
 145 150 155 160

Gln Glu Asn Gly Asp Ala Leu His Glu Asn Gly Glu Pro Ser Ala Arg
 165 170 175

Thr Thr Ala Arg Leu Ala Val Glu Gly Thr Asn Gly Ile Asp Asn His
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Val Pro Thr Ser Thr Leu Val Gln Asn Ser Cys Cys Ser Tyr Val Val
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 Asn Gly Asp Asn Thr Pro Ser Ser Pro Ser Gln Val Ala Ala Arg Pro
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 Lys Asn Thr Pro Ala Pro Lys Pro Leu Ala Ser Glu Pro Ala Asp Asp
 225 230 235 240
 Thr Val Asn Gly Glu Ser Ser Ser Phe Ala Pro Thr Asp Asn Ala Ser
 245 250 255
 Val Thr Gly Thr Pro Val Val Ser Glu Glu Asn Ala Leu Ser Pro Asn
 260 265 270
 Cys Thr Ser Thr Thr Val Glu Asp Pro Pro Val Gln Glu Ile Leu Thr
 275 280 285
 Ser Ser Glu Asn Asn Glu Cys Ile Pro Ser Thr Ser Ala Glu Leu Glu
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 Ser Ser Ala Phe Glu Ala Ala Lys Ser Arg Gln Pro Asp Gly Cys Met
 325 330 335
 Asp Pro Val Arg Gln Gln Ser Gly Asn Ala Asn Thr Glu Thr Leu Pro
 340 345 350
 Ser Gly Trp Glu Gln Arg Lys Asp Pro His Gly Arg Thr Tyr Tyr Val
 355 360 365
 Asp His Asn Thr Arg Thr Thr Thr Trp Glu Arg Pro Gln Pro Leu Pro
 370 375 380
 Pro Gly Trp Glu Arg Arg Val Asp Asp Arg Arg Arg Val Tyr Tyr Val
 385 390 395 400
 Asp His Asn Thr Arg Thr Thr Thr Trp Gln Arg Pro Thr Met Glu Ser
 405 410 415
 Val Arg Asn Phe Glu Gln Trp Gln Ser Gln Arg Asn Gln Leu Gln Gly
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 Ala Met Gln Gln Phe Asn Gln Arg Tyr Leu Tyr Ser Ala Ser Met Leu
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Ala Ala Glu Asn Asp Pro Tyr Gly Pro Leu Pro Pro Gly Trp Glu Lys
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Arg Val Asp Ser Thr Asp Arg Val Tyr Phe Val Asn His Asn Thr Lys
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Thr Thr Gln Trp Glu Asp Pro Arg Thr Gln Gly Leu Gln Asn Glu Glu
485 490 495

Pro Leu Pro Glu Gly Trp Glu Ile Arg Tyr Thr Arg Glu Gly Val Arg
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Tyr Phe Val Asp His Asn Thr Arg Thr Thr Thr Phe Lys Asp Pro Arg
515 520 525

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580 585 590

Arg Arg Arg Leu Tyr Val Ile Phe Arg Gly Glu Glu Gly Leu Asp Tyr
595 600 605

Gly Gly Leu Ala Arg Glu Trp Phe Phe Leu Leu Ser His Glu Val Leu
610 615 620

Asn Pro Met Tyr Cys Leu Phe Glu Tyr Ala Gly Lys Asn Asn Tyr Cys
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Leu Gln Ile Asn Pro Ala Ser Thr Ile Asn Pro Asp His Leu Ser Tyr
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Phe Cys Phe Ile Gly Arg Phe Ile Ala Met Ala Leu Phe His Gly Lys
660 665 670

Phe Ile Asp Thr Gly Phe Ser Leu Pro Phe Tyr Lys Arg Met Leu Ser
675 680 685

Lys Lys Leu Thr Ile Lys Asp Leu Glu Ser Ile Asp Thr Glu Phe Tyr
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Glu Met Tyr Phe Ser Val Asp Met Glu Ile Leu Gly Lys Val Thr Ser
725 730 735

His Asp Leu Lys Leu Gly Gly Ser Asn Ile Leu Val Thr Glu Glu Asn
740 745 750

Lys Asp Glu Tyr Ile Gly Leu Met Thr Glu Trp Arg Phe Ser Arg Gly
755 760 765

Val Gln Glu Gln Thr Lys Ala Phe Leu Asp Gly Phe Asn Glu Val Val
770 775 780

Pro Leu Gln Trp Leu Gln Tyr Phe Asp Glu Lys Glu Leu Glu Val Met
785 790 795 800

Leu Cys Gly Met Gln Glu Val Asp Leu Ala Asp Trp Gln Arg Asn Thr
805 810 815

Val Tyr Arg His Tyr Thr Arg Asn Ser Lys Gln Ile Ile Trp Phe Trp
820 825 830

Gln Phe Val Lys Glu Thr Asp Asn Glu Val Arg Met Arg Leu Leu Gln
835 840 845

Phe Val Thr Gly Thr Cys Arg Leu Pro Leu Gly Gly Phe Ala Glu Leu
850 855 860

Met Gly Ser Asn Gly Pro Gln Lys Phe Cys Ile Glu Lys Val Gly Lys
865 870 875 880

Asp Thr Trp Leu Pro Arg Ser His Thr Cys Phe Asn Arg Leu Asp Leu
885 890 895

Pro Pro Tyr Lys Ser Tyr Glu Gln Leu Lys Glu Lys Leu Leu Phe Ala
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ctggaggtaa aggttggtgt ctctcccatg tggtagttcg agcattatga nccacataat 540

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624